Wireless-G Notebook Network Card

User Manual for Win XP (GWP511)

IOGEAR®

Welcome

Thank you for choosing IOGEAR® to serve your wireless needs. Soon, you will be sharing files or surfing the Internet wirelessly. We hope you will have as much fun using your IOGEAR® Wireless-G Notebook Network Card, as we had designing it.

Rest assured, your IOGEAR® Wireless-G Notebook Network Card is built rock-solid to ensure maximum up-time for you to stay up-and-running. If for any reason you have a problem, we stand behind our products with an industry-leading 3 year factory warranty, so you can have peace-of-mind with your current and future IOGEAR® purchases.

We want you to be happy with your purchase, so we have made every effort to ensure product quality, reliability, and ease-of-use.

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Package Contents

The package you have received should contain the following items:

- IOGEAR® Wireless 802.11g PC Card
- CD ROM containing Driver, Utility Software, and User's Manual
- Quick Start Guide
- Acrobat Reader 6.0

Introduction

IOGEAR®'s Wireless-G Notebook Network Card is a sleek and versatile device for both small and home office users. With IOGEAR, you can surf the Internet, share files, chat with your friends, and....Wirelessly!

Our simple, easy-to-use, web-based setup wizard will have you up-and-running in minutes. Moreover, our turn-key FireWall and Wireless Security packages keep you safe on the 'net.

Remember, IOGEAR®'s Wireless-G Notebook Network Card gives you the wireless connectivity all in a small, cost-effective, and reliable setup. Go with IOGEAR®, and go Wireless!

Features

- 54 Mbps wireless connection speed - up to five times faster than previous 802.11b technology
- Sleek, low-profile, high-gain antenna is designed for maximum reception
- Backward compatible with 802.11b wireless networks, access points, hot spots and other devices
- Includes software to turn your notebook into a wireless access point
- Ultra-easy installation in just a few simple steps
- Solid 3-year manufacturer warranty - built to last!

Requirements

System Requirement:

- Pentium® class notebook computers with one available CardBus slot
- Microsoft® Windows® 98SE, ME, 2000, XP
- CD-ROM drive

Software Installation

1. Insert the IOGEAR® CD (packed with the product) into CD-ROM reader, wait for automatic pop-up window, and then click “Install Configuration Utility” to proceed with the installation.

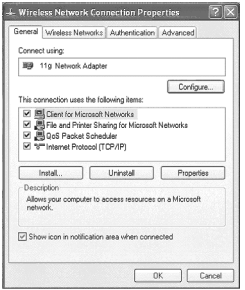
2. After the installation process is complete, re-start your notebook PC. Insert IOGEAR® wireless 802.11g PC Card adapter into Cardbus (PCMCIA) slot. A new hardware wizard will pop up and guide you to install drivers in your system.

3. In Windows XP, a purple tray icon shown as below should be seen at this time.

You can double click the icon second from right to bring up Utility Tool (Windows XP built-in) to set the wireless environment, or you can click “**Start**” ,“**Setting**” ,“**Control Panel**” then double click icon to bring up WLAN Utility Tool with more detail information.

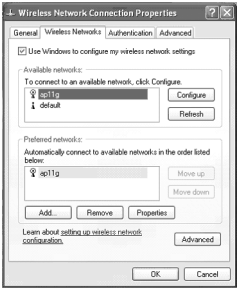
Window Built-in Utility for Win XP

After clicking the icon, WLAN Utility Tool window will be shown as following. Please click the tabs on the top of the screen to configure. (If you use the utility first time, the system will use windows built-in utility as the default utility.)



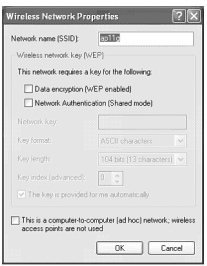
General Tab: In this section, user can determine which adapter to connect wireless network, and install/uninstall network protocols or services.

Wireless Networks Tab



Windows checkbox: Use Windows to configure wireless network.

Available networks: Display the available networks list. You can click “**Refresh**” button to get a new list, or choose one available network then click “**Configure**” button. A Wireless Network Properties dialogue box will pop up as below.



Network name (SSID): Stations which link together should be set to the same SSID.

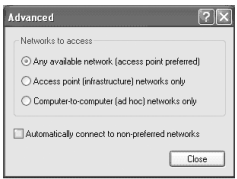
Wireless Network Key (WEP): – You select whether or not to use “**Data Encryption (WEP Enabled)**”. If you enable WEP, you must type the “**key value**” and decide the “K**ey length**”, “**Format**”. You also have the option to select the “**Authentication Type**”. Finally, you can set the PC card be **ad hoc** mode if the “This is a computer-to-computer (ad hoc) network; wireless access points are not used.” item has been checked. No AP is needed in ad hoc mode.

Preferred Networks: Connect to available networks in the order listed in the text box.

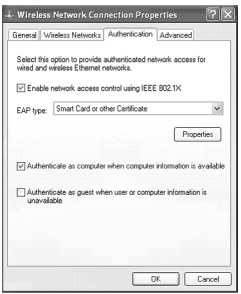
Window Built-in Utility for Win XP

SysTray Checkbox: Show wireless icon in SysTray.

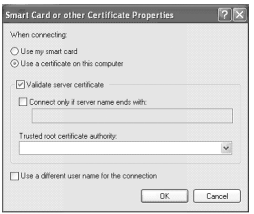
Advanced Button: Use the function that you can decide what network access type to be adapted as following.



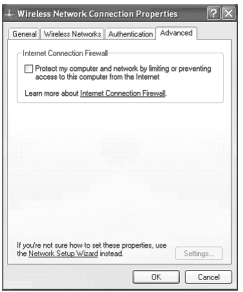
Authentication Tab: Choosing this option to provide authenticated network access for wired and wireless Ethernet networks. User can decide to Enable\Disable "**IEEE 802.1X"** access control as the following picture.


Wireless Network Connection Properties
General
Wireless Networks
Authentication
Advanced
Select this option to provide authenticated network access for wired and wireless Ethernet networks.
Enable network access control using IEEE 802.1X
EAP type:
Smart Card or other Certificate
Properties
Authenticate as computer when computer information is available
Authenticate as guest when user or computer information is unavailable
OK
Cancel

Furthermore, user can select different "**EAP type**" to protect computer safety when connecting.

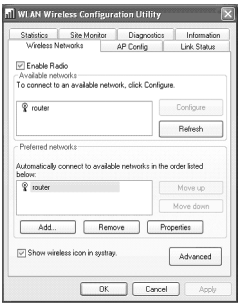

Smart Card or other Certificate Properties
When connecting:
Use my smart card
Use a certificate on this computer
Validate server certificate
Connect only if server name ends with:
Trusted root certificate authority:
Use a different user name for the connection
OK
Cancel

Advanced Tab: The option support Internet Connection Firewall to protect user's computer by limiting or preventing access to this computer from the Internet as below.


Wireless Network Connection Properties
General
Wireless Networks
Authentication
Advanced
Internet Connection Firewall
Protect my computer and network by limiting or preventing access to this computer from the Internet
Learn more about Internet Connection Firewall.
If you're not sure how to set these properties, use the Network Setup Wizard instead.
Settings...
OK
Cancel

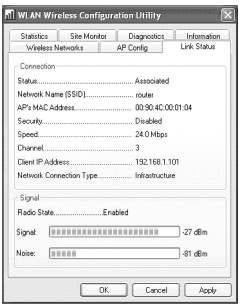
WLAN Utility Tool for Win XP

If you don't want to use windows utility, please cancel the windows check box in wireless Network Tab (page 8). Then clicking the icon, WLAN Wireless Configuration Utility window will be shown as following. Please click the tabs on the top of the screen to configure.

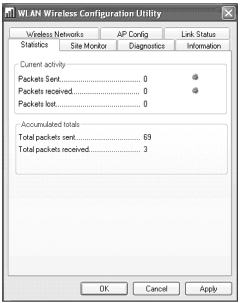


1. Wireless Networks Tab:
   The Setting method is the same as the page 8.

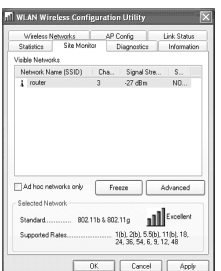
2. Link Status: This option enables you to view the connect information (Status, SSID, AP's MAC Address, WEP, Speed, Channel, Client IP Address, Connection Type), and signal strength (Signal, noise).



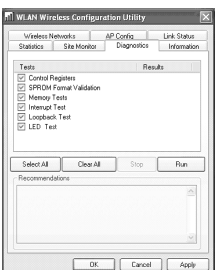
3. Statistics Tab: Choosing the "**Statistics**" option, you can view the **Current Activity** (Packets Sent, Packets received, Packets lost) and A**ccumulated totals** (Total packets sent, Total packets received).



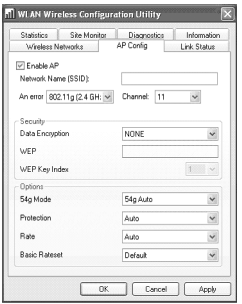
4. Site Monitor Tab: This option enables you to view the available networks. At the same time, you can also know every network's **Standard**, **Support Rates** and **Signal Strength**. The "**Freeze**" button can stop the network search and update process. As for the "**Advanced**" button, it will show more detail information.



5. Diagnostics Tab: This section lets you select what you want to test including **Control Registers**, **SPROM Format Validation**, **Memory Tests**, **Interrupt Test**, **Loopback Test** and **LED Test**. This tool will help you to examine the hardware device quickly and easily.



6. AP Config Tab: This page can set your Cardbus card as an Access Point.



Enable AP checkbox: Use your notebook computer as a Wireless Access Point (AP).

Network Name (SSID): This field is the network name shared among all devices in a wireless network. The SSID must be identical for all devices in the wireless network. It is case-sensitive and must not exceed 32 alphanumeric characters, which may be any keyboard character. Make sure this setting is the same for all devices in your wireless network.

Channel: Select the appropriate channel from the list provided to correspond with your network settings. All devices in your wireless network must use the same channel in order to function correctly.

Data Encryption: Selecting "**None"** disables WEP data encryption. Selecting **WEP** enables WEP data encryption.

WEP: Enter 5 ASCII characters or 10 hexadecimal digits for a 64-bit key. Enter 13 ASCII characters or 26 hexadecimal digits for a 128-bit key.

WEP Key Index: Select which network key index is used for encrypting outbound data and/or authenticating clients.

54g Mode: Select the mode to **54g Auto** for the widest compatibility. Select the mode to **54g Performance** for the fastest performance among 54g certified equipment. Set the mode to **54g LRS** if you are experiencing difficulty with legacy 802.11b equipment.

Protection: In **Auto** mode the router will use RTS/CTS to improve 802.11g performance in mixed 802.11g/802.11b networks. Turn protection **off** to maximize 802.11g throughput under most conditions.

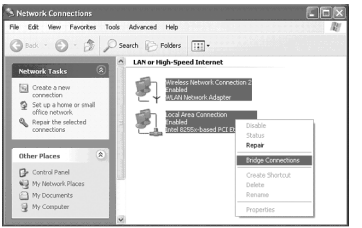
Rate: The default setting is "**Auto"**. The range is from 1 to 54Mbps. The rate of data transmission should be set depending on the speed of your wireless network. You can select from one transmission speed, or keep the default setting, "Auto", to have the router automatically use the fastest possible data rate.

Basic Rateset: Select the basic rate that wireless clients must support.

Note: If you want to pass the received packets to another network (for example: Internet), you must have an Ethernet network card (connected to the Internet) and build a bridge between the AP and network card. Then, all end users connect to the AP can travel in the internet via this bridge. The following steps and picture is the windows XP built-in bridge function.

1. On the **My Network Place** icon, click the right button of the mouse Click **Properties**.

2. Select the two networks and click the right buttons of the mouse. Click **Bridge Connection.**



Troubleshooting

1. **Adapter Installation Problems**
   If your computer cannot find the IOGEAR® Wireless-G Notebook Network Card 802.11g Wireless Cardbus Adapter or the network driver is not installed correctly, check the followings,

   • Make sure the adapter is securely inserted in the Cardbus slot. When you insert the wireless PC card into the notebook's slot, a click should be heard if the PC card is properly inserted. Check for any hardware problems, such as physical damage to the card connector.

   • Try the card in another CardBus slot. If this also fails, test your computer with another wireless LAN Cardbus that is known to operate correctly.

   If you feel hard to connect or transfer data to 802.11b device, please click **Start**->**Setting**->**Control Panel**->**System**->**Hardware Tab**->**Device Manager**->**Network Adapter**->**WLAN Network Adapter**->**Properties**->**Advanced Tab** to enter the configuration page. Find the IBSS 54g (tm) Protection Mode field and replace the default value **off** with **Auto**.
   You also can change the default value of Locale field to comply with the local laws.

2. **Diagnostics Utility**
   - Make sure your computer is using the latest BIOS.
   - If there are other network adapters in the computer, they may be causing conflict, remove all other adapters from the computer and test the wireless adapter separately.
   - Check for a defective computer Cardbus slot. Try the adapter in another computer Cardbus slot that is known to operate correctly.

Specification

Data Rate	54, 48, 36, 24, 18, 12, 11, 9, 5.5,6, 2 and 1 Mbps, Auto Fallback
Standard	IEEE 802.11g
Operating Range	Up to 100m indoors Up to 300m outdoors
Radio Signal Type	CCK – 11, 5.5 Mbps DQPSK – 2Mbps DBPSK – 1Mbps OFDM –54, 48, 36, 24, 18, 12, 9, and 6 Mbps
Input Voltage	3.3 V
Antenna	Built-in chip-antenna
LED Indicator	Power, Link
Host Interface	68-pin connector to Cardbus slot
Operating Temperature	0-50 C (32 – 140 F)
Storage Temperature	0-70 C (32 – 158 F)
Humility	5 to 80% (non-condensing)

Technical Support

If you are still experiencing problems after reading Product User Manual and the Trouble-shooting section, you may either contact our technical support at: 1-949-453-8782
OR, simply click our URL address **www.iogear.com** to go to our company website and check the latest version and other information about the product and/or software.

Radio & TV Interference Statement

WARNING!!! This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. This equipment has been tested and found to comply with the limits for a Class B computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or updates. For further inquires please contact your direct vendor.

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